MACHINE DESIGN

Index to Volume 2

January to December, 1930

The Johnson Publishing Co.
Cleveland

MACHINE DESIGN

GENERAL CONTENTS INDEX

January to December, 1930

For Itemized Index, August to December, See Page 10

A

Accessibility:

In automatics, Oct., p.19.
Of machine controls, May, p.34.

Airplanes:

Bearings for, announcement of, March, p.66.
Comparison of engine sizes, Feb., p.25.
Designing for safety of, March, p.22.
Diesel engine for, Feb., p.27; April, p.38.
Double crankshaft engine for, Nov., p.24.
Elimination of ice formation on wings of, July, p.22.
Gyroscopic mechanism for, Feb., p.24.
Hollow steel propeller blades for, Dec., p.25.
Light weight design of engines for, July, p.15.
Shock absorber strut for, Jan., p.43.
Weight-strength problems in design of Do-X, Dec., p.19.

Alloys:

Directory of, Jan., (insert); Sept., (insert).
See Materials.

Aluminum:

For milling attachment, March, p.19.
Forms in which alloys are produced, June, p.29.
Strength of modern alloys, April, p.22.
See Materials.

American Foundrymen's association:

Report of thirty-fourth annual convention, May, p.62.

American Gear Manufacturers association:

Report of fourteenth annual meeting, May, p.60.

American Society of Mechanical Engineers:

Fiftieth anniversary medal, April, p.37.
Report of fiftieth anniversary meeting, May, p.60.
Report of fifty-first annual meeting, Dec., p.59.

American Society for Testing Materials:

Report of meeting, April, p. 58.

Automobiles:

Diesel engines for, March, p.36.
Engines on Silver Bullet racing car, May, p.19.
Hydraulics on brakes for, March, p.30.
Interchangeability of parts in engines for, July, p.43.
Lubrication system, for chassis of, Nov., p.27.
Transmission units for, April, p.27.

Axles:

Oscillating type, July, p.21.

B

Bearings:

Airplane control, announcement of, March, p.66.
Analyzing types of, Oct., p.46.
Announcement of self-lubricating, Feb., p.68.
Antifriction, in heavy machinery, June, p.39.
Antifriction, investigation of, Jan., p.32.
Bimetal, Jan., p.60.
Combined radial and thrust type, announcement of, May, p.72.
Developments in metals for, March, p.34.
Employed in woodworking machinery, Nov., p.21.
End-thrust type, announcement of, April, p.62.
Felt-seal type, announcement of, May, p.66; Aug., p.70.
Grease seal type, announcement of, June, p.66.
High pressure problems in, Sept., p.46.
Leakproof split type, May, p.22.
Locomotive test for antifriction type, June, p.23.
Lubrication of antifriction, Jan., p.45.
Mounting heavy duty roller type, Dec., p.34.
Mounting high speed, Aug., p.37.
Oil film thickness for, Feb., p.46.
Protection of, by lubrication, in machines, Jan., p.24.
Roller journal, announcement of, March, p.64.
Self-lubricating, Sept., p.34.

Bases:

Machinery, welding of, March, p.35.
Pipe construction of, by welding, Dec., p.49.

Bell, Patrick and the Reaper:

An illustration by Schroeder, Sept., p.53.

Belts:

Vacuum, Jan., p.63.
V type, announcement of, Sept., p.72.

Biographical Sketches:

Barker, Joseph W., Sept., p.56.
Bassett, William H., April, p.52.
Bendix, Vincent, July, p.54.
Bilgram, Hugo, March, p.54.
Bliss, Collins P., March, p.54.
Bristol, Howard H., Sept., p.56.
Cammen, Leon, Oct., p.56.
Cierva, Juan De La, March, p.54.
Cooley, Dean M. E., Aug., p.58.
Cooper, William L., Feb., p.58.
Compton, Dr. Karl T., May, p.54.
Davis, Harvey N., Nov., p.52.
Dorr, John Van Nostrand, Jan., p.56.

Doyle, Edmund A., July, p.54.
Dreese, Erwin E., Jan., p.56.
Dresden, Prof. Daniel, May, p.54.
Emmet, William L., April, p.52.
Evans, R. D., April, p.52.
Faccioli, Guiseppe, July, p.54.
Gillett, Dr. H. W., June, p.56.
Gramm, B. A., Sept. p.56.
Hanley, William A., Oct., p.56.
Harder, Dr. O. E., Aug., p.58.
Harlan, J. A., July, p.54.
Hellmund, Rudolph, Feb., p.58.
Homerberg, Dr. V. O., Dec., p.56.
Jeffries, Dr. Zay., Aug., p.58.
Johnson, J. B., Dec., p.56.
Kent, Robert T., Oct., p.56.
Kettering, C. F., June, p.56.
Kintner, S. M., June, p.56.
Lannon, John D., Feb., p.58.
Lee, William S., Aug., p.58.
Lessells, John M., Sept., p.56.
Loening, Grover, Jan., p.56.
Lynch, Charles A., Nov., p.52.
Mackenzie, K. G., Aug., p.58.
Matschoss, Dr. Conrad, May, p.54.
Mayo, William B., Feb., p.58.
Miller, Fred J., May, p.54.
Miller, W. H., Oct., p.56.
Moore, Prof. H. F., Dec., p.56.
Moore, R. W. E., Dec., p.56.
Nadai, Dr. Ing. A., Nov., p.52.
Owens, J. W., Dec., p.56.
Patch, Nathaniel K. B., March, p.54.
Pendred, L. St. L., May, p.54.
Peterson, V. W., Nov., p.52.
Roe, Joseph W., April, p.52.
Rosenberg, Heyman, Aug., p.58.
Rugg, W. S., June, p.56.
Scott, Prof. Charles F., Jan., p.56.
Shiba, Baron Chisaburo, March, p.54.
Specht, Dr. Sigfrid, Oct., p.56.
Sperry, Dr. Elmer A., Feb., p.58.
St. John, Dr. Ancel, Dec., p.56.
Stratton, Dr. S. W., May, p.54.
Swartz, Harry A., Jan., p.56.
Swasey, Ambrose, June, p.56.
Thompson, Prof. Elihu, Nov., p.52.
Timoshenko, Dr. S., Sept., p.56.
Townsend, J. R., July, p.54.
Trumbull, A. G., Jan., p.56.
Wagner, C. F., April, p.52.
Warner, Edward P., Feb., p.58.
Walterman, B. F., June, p.56.
Watson, J. M., Nov., p.52.
White, William M., Sept., p.56.
Whittemore, H. L., Oct., p.56.
Woolson, Capt. L. M., April, p.52.
Wright, Orville, March, p.54.
Wright, Roy V., July, p.54.

Books:

"A History of Mechanical Instructions," by Albert P. Usher, March, p.72.
"Applied Mechanics," by Frederic N. Weaver, Dec., p.55.
"Engineering Kinematics," by William G. Smith, Oct., p.72.
"Ingenious Mechanisms for Designers and Inventors," by Franklin D. Jones, Dec., p.55.
"Inventions and Patents," by Milton Wright, Oct., p.72.
"Machine Drawing," by Charles L. Griffin, Dec., p.55.
"Mechanical Engineer's Handbook," by Lionel S. Marks, Dec., p.55.
"Practical Automotive Lacquering," by William J. Miskella, May, p.41.
"Practical Japanning and Enameling," William J. Miskella, May, p.41.
"Spur Gears," by Earle Buckingham, Oct., p.72.
"The Aluminum Industry," Vols. I and II, by Junius D. Edwards, Francis C. Frary and Dr. Zay Jeffries, May, p.41.
"The Balancing of Engines," by W. E. Dalby, March, p.72.
"Toward Civilization," by Charles A. Beard, May, p.40.

Brakes:

Application of, in laundry machine, June, p.20.
Magnetic, announcement of, Nov., p.69.

Business:

Announcements, Feb., p.76; March, p.78; April, p.78; May, p.80; June, p.80; July, p.80; Aug., p.80; Sept., p.80; Oct., p.78; Nov., p.80; Dec., p.78.
How Is? Jan., p.54; Feb., p.66; March, p.62; April, p.56; May, p.58; June, p.64; July, p.72; Aug., p.66; Sept., p.70; Oct., p.62; Nov., p.60; Dec., p.61.

C

Casters:

Application of, to machines, March, p.39.
Heavy duty type, announcement of, July, p.66.

Castings:

Airplane engine, discussion of, July, p.17.
Aluminum, April, p.22.
Directory for steel, announcement of, July, p.39.
High strength iron, July, p.40.

Chains:

Alloy for links, announcement of, July, p.62.
Alloy steel, announcement of, June, p.68.
Manganese steel, announcement of, Feb., p.70.
Roller, for stock drives, announcement of, Aug., p.70.
See also Drives.
Silent, application of, Nov., p.32.
Use of, on variable speed transmission, Dec., p.24.
Woodcutting, March, p.20.

Charts:

Simplifying design calculations by use of, Sept., p.42.

Clutches:

Centrifugal, April, p.17, 19.
Centrifugal, announcement of, Nov., p.66.
Design of, for feeding mechanism, Oct., p.20.
Discussion of, in heavy machinery, June, p.40.
Embodying chrome nickel fingers, announcement of, May, p.70.
Equalizing wear in shoes for, Aug. p.26.
Expansion type, April, p.19.
Free wheel type, description of, Sept., p.28.
Magnetic, announcement of, Oct., p.64.
One-way type, June, p.22.
One-way type, announcement of, June, p.68.
Plate and cone type, April, p.19.

Color:

Application of, on machines, Nov., p.42.
Overcoming sales resistance by, March, p.15.

Contributors:

Ault, E. S., Feb., p.35.
Badeau, E. C., Oct., p.36.
Balke, C. W., Dec., p.39.
Ballard, L. A., Oct., p.39.
Baud, R. V., Nov., p.29; Dec., p.27.
Beggs, J. S., Aug., p.43.
Bennett, T. C., June, p.49.
Brayton, H. M., Sept., p.42.
Brewer, Allen F., Jan., p.24.
Brown, J. L., Oct., p.41.
Callahan, M. J., May, p.46.
Chapman, George R., Jan., p.45; Feb., p.51; March, p.37; May, p.45.
Chevraux, E. L., Sept., p.49; Oct., p.32; Dec., p.48.
Clem, D. W., July, p.37.
Clowder, James I., Aug., p.51.
Cosgrove, G. F., Nov., p.19.
DeFries, H. A., May, p.23; Aug., p.31.
Davidson, J. Brownlee, April, p.13.
Ferris, John P., March, p.27; May, p.35; June, p.26.
Firnhaber, F. A., Aug., p.35; Sept., p.35.
Flodin, John F., March, p.42; Apr., p.45; June, p.55; July, p.47; Oct., p.49; Nov., p.45.
Fry, Lawford H., Sept., p.38; Oct., p.27; Nov., p.38.
Goetz, H. C., Jan., p.44.
Groom, J. H., Nov. p.32.
Gunn, George H., March, p.47; May, p.45; July, p.45.
Hagen, E. H., June, p.48; July, p.47; Oct., p.31; Nov., p.47.
Hardecker, John., Jan., p.36; Feb., p.39; Apr., p.45; July, p.31; Aug., p.50; Sept., p.62; Oct., p.48; Nov., p.45; Dec., p.19.
Hartman, F. V., April, p.22; June, p.29.
Heller, Edward, Dec., p.45.
Hoff, J. A., Oct., p.46.
Jermy, L. E., Feb., p.19; March, p.24; April, p.31; May, p.15; Oct., p.19.
Karelitz, G. B., Feb., p.46.
Kaufman, D., Oct., p.49.
Keller, I. C., May, p.45.
Kempter, Phil., May, p.42.
Kinkead, Robert E., Nov., p.44.
Luce, Alexander W., Dec., p.54.
Macauley, Alvan, Aug., p.51.
Marshall, John W., Feb., p.44.
Martenis, Prof. John V., Jan., p.29; Feb., p.31; April, p.34; July, p.34.
Matthews, Burton, Feb., p.50.
Merck, John, Aug., p.19.
Miskella, William J., March, p.15; Nov., p.41.
Moore, H. F., March, p.46.
Parrish, R. H., Dec., p.49.
Pierson, J. S., Jan., p.45.
Plastow, Chas. T., Dec., p.49.
Rauch, John D., Apr., p.44; June, p.39; Sept., p.45.
Rosenberger, Wm. A., Dec., p.43.
Ryder, Earle A., July, p.15.
Salmon, F. W., July, p.45; Aug., p.51.
Schaphorst, M. E., Aug. p.49.
Schenck, L. C., June, p.17.
Seely, Fred B., Sept., p.32.
Shepherd, Harold F., Sept., p.23; Dec., p.31.
Slaymaker, R. R., Aug., p.28.
Sterling, H., March, p.47; Sept., p.51.
St. John, S. B., Apr., p.45.
Thompson, C. H., June, p.47.
Trofimov, L. A., Aug., p.47.
Tufts, Lesley R., Jan., p.15, 45; Sept., p.51.
Veith, H. B., March, p.39.
Wahl, A. M., May, p.26; June, p.34; July, p.24; Aug., p.44.
Weckstein, S. M., Dec., p.34.
Williams, C. G., Feb., p.51; July, p.53.
Windle, E. H., March, p.35.
Wolf, Austin M., Feb., p.28; April, p.27.
Yapp, Lewis J., Dec., p.49.

Controls, Electrical:

Circuit breaker, announcement of, April, p.68.
Contactor, announcement of, July, p.64.
Contactors, time cycle, announcement of, Sept., p.64.
Cubicle type, indoor, announcement of, June, p.66.
Limit switch for conveyor drive, announcement of, July, p.68.
Magnetic contactor, announcement of, Feb., p.68; July, p.62.
Magnetic switch, announcement of, May, p.69.
Master switch, announcement of, May, p.66.
Motor starter, announcement of, April, p.64.
Overload breaker, announcement of, Jan., p.63; Dec., p.66.
Overload relay, announcement of, March, p.66.
Overload switch, announcement of, March, p.64.
Overload trip, April, p.20.
Pressure regulator, announcement of, May, p.69.
Rheostats, direct current, announcement of, July, p.66.
Riderless cars operated by, Dec., p.26.
Safety switch, announcement of, May, p.72.
Single pole limit, announcement of, June, p.72.
Starter, magnetic, announcement of, Aug., p.72.
Starter, overload protection, announcement of, Nov., p.69.
Starter, resistor type, announcement of, Nov., p.64.
Starters, across-the-line, announcement of, Feb., p.72; April, p.66; July, p.68; Oct., p.64, 68; Dec., p.64.
Starters, alternating current motor, announcement of, Dec., p.66.
Starters, automatic, announcement of, Nov., p.66.
Starters, inclosed, announcement of, Dec., p.64.
Starting switch, announcement of, Aug., p.70.
Switch, announcement of, June, p.70.
Switch, float, announcement of, Nov., p.70.
Switch, pilot, three-position, announcement of, Oct., p.68.
Switch, reversing, announcement of, Sept., p.64.
Thermostatic, announcement of, June, p.72.
Time starters, magnetic, announcement of, Oct., p.66.
Time switch, automatic, announcement of, June, p.66.

Convenience:

Necessity of, in machines, Feb., p.20.

Corrosion:

Resisting by chrome nickel alloys, May, p.23; June, p.43.
Resisting by means of tantalum, Dec., p.39.

Costs:

In welding, Nov., p.44.
Keeping records of, Feb., p.50.

Couplings:

Employment of, Aug., p.20.
Flexible, Oct., p.25.
Flexible, announcement of, April, p.64; Aug., p.72.
Flexible, geared type, announcement of, Dec., p.63.
Flexible, spider type, announcement of, July, p.66.
Hydraulic, to replace clutch mechanism, Sept., p.30.

Crankshafts:

Reducing calculations in design of, Dec., p.31.

Cylinders:

Description of, in 16 cylinder Cadillac engine, Feb., p.30.

D

Design:

Agriculture machinery, April, p.13.
Aircraft diesel engine, April, p.38.
Airplane shock absorber, Jan., p.42.
Aluminum alloys in, April, p.22.
Antifriction bearings in, of heavy machinery, June, p.39.
Application of corrosion resisting alloys in, May, p.23.
Application of hydraulics in, May, p.35; June, p.26.
Bearings in, discussion of, Oct., p.46.
Cadillac V-16 engine, Feb., p.28.
Clutches, April, p.17, 18, 19.
Coal cutting machine, May, p.15.
Combatting vibration in, of centrifugal machinery, June, p.17.
Considering the human element in, Feb., p.19; April, p.31; May, p.32.
Corrosion resistant alloys in, Oct., p.36.
Effect on sales, Sept., p.45.
Features of, in hydroplane, July, p.20.
Finishes in, overcoming sales resistance by, March, p.15.
Folding machine, Jan., p.15.
Heavy duty roller bearings in, Dec., p.34.
Hydraulic principle in, March, p.27.
Incorporating accessibility in, Oct., p.19.
Influence on civilization, Feb., p.45.
Interchangeability of engine parts, July, p.43.
Light weight factors in, July, p.15.
Lubrication in, Oct., p.39.
Material selection, Sept., p.23.
Method of, for helical springs, Part I, May, p.26; Part II, June, p.34; Part III, July, p.24; Part IV, Aug., p.44.
Method of reducing calculations in, of crankshafts, Dec., p.31.
Multiple production to conserve space, Dec., p.45.
Photoelasticity in, Nov., p.29; Dec., p.27.
Possibilities of tantalum in, Dec., p.39.
Practical aspect of, Oct., p.48.
Progress in, of textile machinery, Jan., p.33.
Safety, convenience and operation factors in, July, p.28.
Safety factors in, Aug., p.40.
Spindles and mountings for extreme speeds, Aug., p.35.
Stampings, use of, in, May, p.42.
Standardization in, of motors, Oct., p.41.
Steel forgings in, Sept., p.38; Oct., p.27; Nov., p.38.
Style in, Jan., p.45.
Thyratron tube used in, Aug., p.27.
Trends in woodworking machinery, Nov., p.19.
Variable speed transmissions in machines, July, p.37.
Weight-strength problems in, Dec., p.19.
Welded construction in, March, p.35; Oct., p.35.

Design Calculations:

Consumption of air, July, p.27.
Flexure formula, correcting error in, Sept., p.32.
Method of determining air consumption, May, p.45.
Moment of inertia, March, p.42; June, p.48; July, p.45; Nov., p.45.
Rapid shaft, use of charts for, Aug. p.28.
Reducing, in designing crankshaft members, Dec., p.31.
Shaft bending due to belt and chain pulls, Oct., p.31.
Sides of triangle, March, p.46.
Simplifying by mechanical method, Oct., p.70.
Simplifying by use of charts, Sept., p.42.
Slippage in friction drives of loaded drums, Dec., p.43.
Squares and roots of large numbers, July, p.27.
Strength of gear teeth, April, p.34; July, p.34.
Stresses in springs, June, p.47.
Suggestions for filing of, June, p.47.

Design Department:

Blueprinting machines, announcement of, Feb., p.72.
Bonus system, discussion of, April, p.45; June, p.49.
Clean out active files, Dec., p.49.
Draftsman or Ingenieur, March, p.47; April, p.45; June, p.47.
Effecting economies in work of, July, p.31.
Equipment for calculations in, Oct., p.70.
Filing equipment for, Oct., p.32.
Furnishing prints with machines, Jan., p.44.
Graduated curve for use in, Sept., p.51.
Inventiveness or ingenuity?, July, p.47.
Organization and supervision of, Part V, Jan., p.36; Part VI, Feb., p.39.
Powers and roots of numbers, Aug., p.49.
Practical versus student mind, July, p.45 .
Preserving drawings in, Sept., p.49; Oct., p.32.
Schedule card, use of, Jan., p.39.
Scheduling design work, Feb., p.50.
Scheduling work in, Jan., p.44.
Shop contact, discussion, Dec., p.49.
Slide rule device, Sept., p.44.
Standardization of drawings, Feb., p.51.
Locating controls by trial, May, p.45.

Design Work:

Outline of procedure in, of agricultural machines, April, p.14.

Designer:

Modern function of, discussion, Oct., p.49.

Diesel, Rudolf, and the Diesel Engine:

An illustration by Schroeder, July, p.49.

Directory of Alloys:

Iron, steel and nonferrous, Jan., (insert); Sept., (insert).

Drawings:

Blueprinting, Feb., p.39.
Filing, Feb., p.39.
Numbering of, Jan., p.38.
Preserving valuable, Sept., p.49; Oct., p.32.
Preserving valuable, comment on, Oct., p.48; Dec., p.48.
Recommended practice for, April, p.42.
Reproducing, Feb., p.39.

Drives:

New type for buses and trucks, Feb., p.26.
Planetary gear type for vehicle, July, p.21.
Power roll type, July, p.23.
Roller chain stock, announcement of, Aug., p.70.
Silent chain, Nov., p.32.
Study in friction, of loaded drums, Dec., p.43.
Variable, incorporation of, in machines, July, p.37
Variable, remote controlled, Sept., p.68.
V-Belt, announcement of, Sept., p.72.

E

Economy:

Cutting costs on new machines, Aug., p.51.
Effecting, in design department, July, p.31.
In finishes, Nov., p.41.
Through interchangeability of parts, July, p.43.
Through use of filing equipment, Oct., p.32.

Editorials:

A New Motive for Design, Feb., p.52.
A Sign of the Times, Dec., p.50.
An Acknowledgment, Sept., p.52.
Are Opportunities Broadening?, May, p.48.
Automatics Increase Business, Oct., p.50.
Back to Fundamentals, March, p.48.
Creation Versus Design, Jan., p.46.

Design and Competition, June, p.50.
Design is the Basic Fundamental, Nov., p.48.
For Reference Purposes, Aug., p.52.
Humanistic Engineering, May, p.48.
Is Standardization Sound?, July, p.48.
Machinery on the Farm, April, p.46.
Minimizing Machine Noises, Jan., p.46.
New Uses of Materials, Feb., p.52.
Now Style Is Patentable, April, p.46.
Preparedness Pays—Design Work Must Continue, Aug. p.52.
Progress Made in Design Is Epitomized, Oct., p.50.
Railroad Field Would Benefit By Redesign, Nov., p.48.
Save Men; Spend Machines, March, p.48.
Seize the Opportunity—Merchandising Methods Are Changing, Dec., p.50.
Systematize Development Work, July, p.48.
The True Function of Design, June, p.50.

Engines:
Cadillac V-16, Feb., p.28.
Diesel aircraft, April, p.38.
Elimination of carburetor by new device, June, p.25.
Outboard, Jan., p.19.
Pistons for automobile, April, p.17.
Silver Bullet racing car, May, p.19.

Faraday, Michael, and the Dynamo:
An illustration by Schroeder, June, p.51.

Fastenings:
Lock washers, announcement of, April, p.68.
Screw thread, self-locking, Jan., p.60.

Filter:
Lubricating oil, announcement of, March, p.66; April, p.66.

Finishes:
Aluminum coating, announcement of, April, p.66.
Chromium, April, p.21.
Color application, in machines, Aug., p.24.
Corrosion resistant paint, announcement of, Oct., p.64.
Effecting economies in, Nov., p.41.
Evolution of processes for, May, p.46.
Heat resisting, announcement of, April, p.62.
Overcoming sales resistance by, March, p.15.
Quick drying, announcement of, Nov., p.62.

Folding Machine:
Design of, Jan., p.15.

Forgings:
Diesel engine crankshaft, Sept., p.25.
Steel, in design, Sept., p.38; Oct., p.27; Nov., p.38.

G

Gears:
Application of, in coal cutting machine, May, p.17.
Application of, in Silver Bullet racing car, May, p.19.
Design of, strength of teeth, April, p.34, July, p.34.
Non-metallic, unconventional tooth form proposed, June, p.45.
Non-resonant, Jan., p.20.
Principles of design, Feb., p.31.
Reducing noise of March, p.25.
Strength of teeth, comment on, Aug., p.50.
Tooth form for, announcement of, Aug., p.74.
Trend in, as indicated by four-speed transmissions, April, p.27.

Gear Shift:
Use of vacuum for, Jan., p.22.

Geneva Wheels:
Indexing by, March, p.37.

Great Moments in Machine Design:
Eli Whitney and His Milling Machine, Jan., p.47.
George Stephenson and His Locomotive, May, p.49
Hargreaves and the Spinning Jenny, Dec., p.51.
Henry Maudslay and His Engine Lathe, Feb., p.53.
Hero and His Reaction Steam Turbine, April, p.47.
James Nasmyth and the Steam Hammer, Nov., p.49.
Mergenthaler and His Linotype Machine, Aug., p.53.
Michael Faraday and the Dynamo, June, p.51.
Miehle Two-Revolution Printing Press, Oct., p.51.
Patrick Bell and the Reaper, Sept., p.53.
Rudolph Diesel and the Diesel Engine, July, p.49.
Trial trip of Robert Fulton's "Clermont," March, p.49.

H

Hargreaves and the Spinning Jenny:
An illustration by Schroeder, Dec., p.51.

Hero and His Reaction Steam Turbine:
An illustration by Schroeder, April, p.47.

Human Element:
Consideration of, in design of laundry machine, June, p.17.
Consideration of, in design of machines, March, p.24; April, p.31; May, p.32; July, p.28.
In design, comment on, May, p.45.
Safety devices for machines, Aug., p.40.
Timely consideration of, in design, Feb., p.19.

Hydraulics:
Application of, in design, May, p.35; June, p.26.
Employment of, in design, March, p.27.
See Principles.

I

Ideas:
Scanning the field for, Jan., p.19; Feb., p.23; March, p.19; April, p.17; May, p.19; June, p.21; July, p.20; Aug., p.24; Sept., p.28; Oct., p.23; Nov., p.24; Dec., p.24.

Index:
Itemized, Aug., p.7; Sept., p.7; Oct., p.7; Nov., p.7; Dec., p.7.
To Volume I, Jan., p.67.

Indexing:
Geneva wheel, April, p.44.

Interchangeability:
Cost reduction through, July, p.43.

Inventions:
Processes in evolution of, Aug., p.47.

K

Keys:
For shafting, Jan., p.32.

L

Laboratory:
Dedication of Packard, Dec., p.54.

Lacquers:
See Finishes.

Locomotives:
Castings, Feb., p.25.
Employed in test to obtain bearing data, June, p.23.
Features of giant, Jan., p.21.

Lubrication:
Antifriction bearings, Aug., p.37.
Bearing grease, announcement of, Dec., p.63.
Consideration of, in design of machinery, Jan., p.24.
Design of unit for, Oct., p.23.
Discussion on merits of modern systems, June, p.42.
Factors in choosing system for, Oct., p.39.
Grease distribution system, announcement of, Sept., p.68
High pressure journal, Sept., p.46.
High speed spindles, Sept., p.35.
In machines, discussion of, Feb., p.21.
Is salient factor in design, Jan., p.24.
Lubricant for gears, announcement of new, Nov., p.70.
Mechanical units for, announcement of, Aug., p.68.
One point system for automobile chassis, Nov., p.27.
Ring oiler, automatic, announcement of, Oct., p.70.
Safety of bearings determined by, Feb., p.46.
System for chassis, Jan., p.19.
System for lubricating 72 bearings, July, p.70.

M

Machinery:
Agricultural, intermittent use controls design of, April, p.13.
Automatic, accessibility in, Oct., p.19.
Billet casting, Feb., p.30.
Billet chipper, Sept., p.31.
Blueprinting, announcement of, Feb., p.72.
Boring mill for large work, Jan., p.23.
Color press, Feb., p.25.
Drilling and tapping unit, design of, Dec., p.45.
Electric shovel, Feb., p.23.
Forging upsetter, Aug., p.24.
Form rolling, Aug., p.25.
General purpose, type for metal working, July, p.22.
Heavy type, antifriction friction bearings in, June, p.39.
Hydraulic, description of, May, p.35.
Hydraulically operated, description of, June, p.26.
Lathe, combined with automatic control unit, Dec., p.24.
Laundry, combating vibration in, June, p.17.
Loaders and conveyors, applying hydraulics in, Aug., p.19.
Mining, coal loader, April, p.20.
Mining, space is limiting factor in design of, May, p.15.
Nail making, eliminating noise in, May, p.32.
Ore unloaders, description of, Dec., p.26.
Paper folding, design of, Jan., p.15.
Plate trimming unit, May, p.21.
Power shovel, convenience of operation in, May, p.34.
Sand blasting, Jan., p.21.
Sand milling, rubber tires on, Nov., p.25.
Separating, by magnetic method, Nov., p.25.
Textile, development in design of, Jan., p.33.
Trolley car cleaner, Oct., p.26.
Vending, for gasoline, Nov., p.27.
Winch, welding of, Oct., p.35.
Woodworking, trends in design of, Nov., p.19.

Manufacturers' Publications:
Compilation of, Jan., p.64; Feb., p.76; March, p.74; April, p.74; May, p.76; June, p.77; July, p.77; Aug., p.77; Sept., p.77; Oct., p.74; Nov., p.76; Dec., p.74.

Materials:
Alloy, aluminum, for engines, June, p.21.
Alloy, bronze for bearings, announcement of, May, p.69.
Alloy, copper, announcement of, April, p.64; Sept., p.64.
Alloy, magnesium, reference to, June, p.21.
Alloy of iron, announcement of new, March, p.64.
Alloys, aluminum for crane construction, Oct., p.23.
Alloys, aluminum, strength of, April, p.22.
Alloys, chrome nickel, corrosion data, May, p.23; June, p.43.
Alloys, directory of, Jan., (insert); Sept., (insert).
Alloys, iron, fund for research work, March, p.60.
Alloys, new, Oct., p.26.
Alloys, nickel, Oct., p.36.
Alloys, steel, in locomotive test, June, p.23.
Alloys, wrought aluminum, discussion of, June, p.29.
Appraising from hardness test data, Feb., p.35.
Bearing, March, p.34.
Description of, March, p.19.
Employment of, in light weight design, July, p.15.
Employment of, to solve weight-strength problems, Dec., p.19.
Forging, Sept., p.38; Oct., p.27; Nov., p.38.
High permeability iron, Jan., p.60.
High strength iron, July, p.40.
High strength iron, announcement of, May, p.66.
Metal coating alloyed with base, Sept., p.68.
Nitrided steel, properties and uses of, Aug., p.31.
Non-metallic, discussion of, Aug., p.24.
Non-metallic, reference to, June, p.21.
Phenol resinoid laminated, for gears, June, p.45.
Raising strength of, Feb., p.51; March, p.46.
Rubber, application of, in paper industry, Feb., p.24.
Selection of, Sept., p.51.
Selection of, rests with designer, Sept., p.23.
Tantalum, properties of, Dec., p.39.
Use of in aircraft diesel engine, April, p.38.
Use of, in Silver Bullet racing car, May, p.19.
Welded copper and aluminum sheets, announcement of, Oct., p.68.

Maudslay, Henry, and His Engine Lathe:
An illustration by Schroeder, Feb., p.53.

Mechanical Exposition and Power Show:
Report of, Jan., p.41, Dec., p.47.

Mechanical Principles:
Timely re-statement of, Jan., p.29; Feb., p.31; April, p.34; July, p.34.

Mechanisms:
Combinations in, Aug., p.43.
Free-wheel, description of, June, p.22; Sept., p.29.
Valve, for Cadillac V-16, Feb., p.28.

Mergenthaler and His Linotype Machine:
An illustration by Schroeder, Aug., p.53.

Miehle Two-Revolution Printing Press:
An illustration by Schroeder, Oct., p.51.

Moment of Inertia:
Calculation of, March, p.42.
Chart for calculating, Sept., p.43.

Monotony:
Discussion of, in machines operation, Feb., p.22.

Motors:
Built-in units on boring, Nov., p.26.
Conveyor, announcement of, June, p.70.
Direct connected on woodworking machinery, Nov., p.20.
Enclosed, across-the-line, announcement of, Sept., p.68.
Enclosed type, announcement of, June, p.68.
Explosion proof, announcement of, July, p.64; Aug., p.68.
Fan-cooled type, announcement of, March, p.68; Nov., p.70.
Fractional horsepower, announcement of, Dec., p.66.
High starting torque, announcement of, Sept., p.66.
Individual drive, Sept., p.31.
Individual, for runout table, June, p.24.
Individual, for saw bench, June, p.24.
Induction, announcement of, Dec., p.67.
Outboard, description of, Jan., p.19.
Single-phase, squirrel-cage, Jan., p.63.
Special applications of, Nov., p.36.
Standardization of, Oct., p.41.
Totally enclosed, fan-cooled, announcement of, Oct., p.70; Nov., p.64; Dec., p.62.
Ventilated, announcement of, May, p.64.

Mountings:
Heavy duty roller bearings, Dec., p.34.
Spindle, for extreme speeds, Aug., p.35.

N

Nasmyth, James, and the Steam Hammer:
An illustration by Schroeder, Nov., p.49.

National Machine Tool Builders association:
Report of twenty-ninth annual meeting, Nov., p.56.

National Metal Congress:
Report of twelfth national exposition, Oct., p.45.

New Materials and Parts:
Description of, Jan., p.60; Feb., p.68; March, p.64; April, p.62; May, p.64; June, p.66; July, p.62; Aug., p.68; Sept., p.64; Oct., p.64; Nov., p.62; Dec., p.62.

Noise:
Discussion of, in machine operation, Feb., p.22.
Reduction of, in designing machines, March, p.24.

Noteworthy Patents:
Jan., p.48; Feb., p.54; March, p.51; April, p.48; May, p.50; June, p.52; July, p.50; Aug., p.54; Sept., p.55; Oct., p.52; Nov., p.50; Dec., p.52.

Nut:
Recessed type, announcement of, Feb., p.72.

O

Obituaries:
Bruning, Edwin C., June, p.58.
Clarkson, Coker F., July, p.74 .
Curtiss, Glenn H., Aug., p.78.
Guggenheim, Daniel, Oct., p.76.
Gutenkunst, William, Oct., p.76.
Hollis, Dr. Ira N., Sept., p.78.
Holmes, Arthur S., Sept., p.78.
Lewis, Wilfred, Feb., p.60.
Riker, Andrew L., July, p.74.
Sperry, Dr. Elmer A., July, p.74.
Woolson, Capt.. L. M., June, p.58.

P

Paints:
See Finishes.

Patents:
Importance of., Jan., p.37.

Patents, Noteworthy:
Antifriction bearing, April, p.49; May, p.50; Aug., p.55.
Automatic clutch mechanism, May, p.50.
Ball and socket joint, March, p.51.
Ball transmission, Feb., p.54.
Bearing construction, March, p.51.
Bottle handling mechanism, Oct., p.53.
Clutch, July, p.50; Nov., p.51.
Coupling, Oct., p.54.
Coupling, flexible shaft, July, p.52.
Coupling, universal, Feb., p.56.
Crank mechanism, April, p.48.
Engine, internal combustion, Sept., p.54.
Engine, oil burning, July, p.52.
Engine starter, June, p.53; Nov., p.51.
Flexible coupling, May, p.52; Dec., p.52.
Gearing, Feb., p.55.
Grease cup, Aug., p.56.
Hub bearing, Feb., p.56.
Lubricant expelling cup, Jan., p.50.
Lubricating system for axle, April, p.48.
Lubricator, June, p.53.
Magnetic separator, Jan., p.50.
Mechanical movement, March, p.50.
Mechanical movement for converting motion, May, p.51; July, p.51.
Motor, variable speed, Aug., p.54.
Paper making machine and method, Jan., p.48.
Pulley with interchangeable hubs, June, p.54.
Pump bearing, Jan., p.48.
Seal, fluid tight, March, p.50.
Shaft coupling, automatic, Nov., p.50.
Thrust bearing, June, p.52.
Thrust bearing aligning method, Oct., p.52.
Transmission, variable speed, Sept., p.54; Dec., p.52.
Universal joint, Dec., p.53.

Personal Items:
Compilation of, Jan., p.58; Feb., p.60; March, p.56; April, p.54; May, p.56; June, p.58; July, p.56; Aug., p.60; Sept., p.58; Oct., p.58; Nov., p.54; Dec., p.58.

Photoelasticity:
Its application in design, Nov., p.29; Dec., p.27.

Photoelectric Units:
Announcement of, May, p.64, 70; Nov., p.62.
In color matching machines, Nov., p.24.

Plating:
See Finishes.

Portability:
Casters employed for, March, p.39.

Power Transmission:
Stresses in shafting, Jan., p.29.

Press:
Cushioned bed for, May, p.21.
Four-crank type, Oct., p.24.

Principles:
Centrifugal, employment of in design, March, p.22.
Centrifugal, in clutch, April, p.17, 19.
Centrifugal, use of in laundry machine, June, p.17.
Hydraulic, May, p.35.
Hydraulic, discussion of, April, p.44.
Hydraulic, in design, March, p.27; June, p.26.
Hydraulic, in loaders and conveyors, Aug., p.19.

Professional Viewpoints:
Compilation of, Jan., p.44; Feb., p.50; March, p.46; April, p.44; May, p.45; June, p.47; July, p.45; Aug., p.49; Sept., p.51; Oct., p.49; Nov., p.45; Dec., p.48.

Pulleys:
Molded compound, announcement of, Oct., p.66.
One-piece cored construction, Nov., p.20.

Pumps:
Coolant, announcement of, July, p.68; Nov., p.64.
Hydraulic, March, p.32.
Hydraulic pressure, announcement of, July, p.64.
Hydraulic transmission, announcement of, Sept., p.66.
Motor driven, announcement of, June, p.70.
Rotary type, May, p.22.
Rotary, use of, on folding machine, Jan., p.16.
Rotary, with nitrided parts, Oct., p.24.
Suction and discharge, discussion, Dec., p.48.
Lubricating, types used, Jan., p.24.
Use of, in lubricating system, Jan., p.19.

R

Reciprocating Parts:
Elimination of, in design of folding machine, Jan., p.15.

Recording Unit:
Circular chart type, announcement of, Dec., p.64.

Reduction Units:
See Speed Reducers.

S

Safety:
Designing airplanes for, March, p.22.
Considering in design, Aug., p.41.

Screw Thread:
Self-locking, announcement of, Jan., p.60.

Shafts:
Bending of, due to belt and chain pulls, Oct., p.31.
Constant speed, in textile machinery, Jan., p.35.
Empirical formula for, Jan., p.32.
High speed, Aug., p.35.

Shafting:
Stresses in, Jan., p.29.

Simplification:
Designing for, March, p.47.
Importance of, in design, Feb., p.21.

Society of Automotive Engineers:
Report of twenty-fifth anniversary meeting, June, p.60.

Speed:
Adjustable range control, direct current, in textile machinery, examples of, Jan., p.34.

Speed Reducers:
Antifriction bearing, announcement of, Nov., p.62.
Double reduction gear, announcement of, April, p.68; June, p.74.
Helical gear type, announcement of, April, p.70.
In combination with motor, Jan., p.22.
Industrial, announcement of, Aug., p.72.
Motor driven, announcement of, Oct., p.68.
Motorized, announcement of, Dec., p.67.
Revocentric and heliocentric type, announcement of, March, p.68.
Right angle type, announcement of, Feb., p.68; April, p.62.
Variable, disk type, Dec., p.24.
See Drives.

Spindles:
Ball bearings in, Sept., p.35.

Springs:
Considerations in design of, Part I, May, p.26; Part II June, p.34; Part III, July, p.24; Part IV, Aug. p.44.
Research bureau formed, Sept., p.60.
Ring type, Jan., p.43.
Suspension system, for automobiles, Nov., p.26.

Stampings:
Employment of, in design, May, p.42.

Standardization:
Analyzing aluminum alloys, Oct., p.49.
Ball bearing, Aug., p.62.
Discussion by testing group, March, p.60.
Discussion of, Aug., p.49.
Formation of light metals group, Dec., p.42.
Machine pins, Nov., p.35.
Motor dimensions, Oct., p.41.
Of drawing room practice, Feb., p.51.
Progress in, March, p.58.
Recommended practice for line drawings, April, p.42.
Roller chains, sprockets and cutters, Oct., p.60.
Screw thread standard adopted, July, p.60.
Transmission chains, March, p.60.

Steel Balls:
Use of, in brake mechanism, June, p.20.
Use of, in feeder of folding machine, Jan., p.18.

Steel Founders' Society of America:
Co-operation between foundry and designer urged, May p.44.

Stephenson, George, and His Locomotive:
An illustration by Schroeder, May, p.49.

Stresses:
Analyzing by photoelastic method, Nov., p.29; Dec., p.27.
In forgings, nature of, Oct., p.28.
In shafting, Jan., p.29.
In springs, Part I, May, p.26; Part II, June, p.34; Part III, July, p.24; Part IV, Aug., p.44.

Switches:
See Controls, Electrical.

T

Templet:
Laminated type, description of, June, p.25.

Testing:
Electro-magnetic method of, July, p.23.
Hardness of metals, Feb., p.37.

Topics of the Month:
Digest of, Feb., p.62; March, p.58; April, p.58; May, p.61; June, p.60; July, p.58; Aug., p.62; Sept., p.60; Oct., p.59; Nov., p.56; Dec., p.59.

Transmission:
Description of, for Silver Bullet racing car, May, p.20.
Four-speed automobile, April, p.27.
Hydraulic power, March, p.28.
See Drives.

Vacuum belting, Jan., p.63.
Variable speed, remote controlled, announcement of, Sept., p.68.
Variable speed type, March, p.20; April, p.20; Aug., p.74; Sept., p.31; Dec., p.62.

Trial Trip of Robert Fulton's "Clermont":
An illustration by Schroeder, March, p.49.

V

V-Belts:
Application of, in laundry machine, June, p.18.
New development, announcement of, Sept., p.72.

Vacuum:
Employment of, for gear shift, Jan., p.22.
High heat, developed in, Aug., p.30.
Principle applied in belting, Jan., p.63.

Valves:
Design of, in Cadillac V-16, Feb., p.28.
Rotary, for combustion motor, July, p.21.

Vibration:
Elimination of, in centrifugal machinery, June, p.17.
Causes of, March, p.26.
In machinery, Feb., p.22.
Reducing in rail cars, Nov., p.70.
Torsional, computing in crankshafts, Dec., p.31.
Torsional, studying method of reducing, June, p.25.

Voltmeters:
Low voltage, Feb., p.70.

W

Weight:
Designing for light, July, p.15.
—Strength, problems on DO-X, Dec., p.19.

Welding:
Award for discussion on, Nov., p.56.
Cost factor in, Nov., p.44.
Electrode for, announcement of, May, p.74.
Employment of, in gear case, July, p.33.
Employment of, on drilling machine, Oct., p.25.
Generator base constructed by, Dec., p.49.
New type rod for, announcement of, Oct., p.66.
Of spot welding machine, Jan., p.21.
Redesigning machinery base for, March, p.85.
Winch construction by, Oct., p.35.

Westinghouse, George:
Tribute to, Nov., p.28.

Whitney, Eli, and His Milling Machine:
An illustration by Schroeder, Jan., p.47.

Wire:
Aluminum, insulated, announcement of, Dec., p.68.

Wire Screen:
Announcement of, Feb., p.68.

Woolson, Capt., L. M.:
Tribute to, Aug., p.51.

ITEMIZED INDEX

August to December, 1930

This type of index was not included in issues prior to August, 1930

Key: Edit, Editorial Pages; Adv, Advertising Pages; R, Right hand column; L, Left hand column

Design Calculations:
Application of Flexure Formula, Sept., Edit. 32, 33, 34L.
Belt and Chain Pull, Oct., Edit. 31.
Centrifugal Pumps, Dec., Edit. 48 R
Charts in Rapid Shaft Design, Aug., Edit. 28, 29, 30
Equipment for, Sept., Adv. 82L; Oct., Adv. 80 L; Nov., Adv. 82L; Dec., Adv. 80 L
Friction Drives, Dec., Edit. 43, 44
Moment of Inertia, Sept., Edit. 42, 43, 44; Nov., Edit. 45 R, 46, 47L
Torsional Vibration in Crankshaft, Dec., Edit. 31, 32, 33

Design Problems:
Applying Built-in Motors, Nov., Edit. 20, 21, 26, 36, 37
Applying Hydraulics, Aug., Edit., 19, 20, 21, 22 23
Combating Corrosion Sept., Edit. 26R; Oct., Edit. 36, 37, 38; Dec., Edit. 39, 40, 41, 42
Combating Vibration, Aug., Edit. 20L, 37 L, 39 L
Conserving Space, Dec., Edit. 45, 46, 47
Considering Human Element, Aug., Edit. 40, 41, 42
Determining Stresses in Parts, Nov., Edit. 29, 30, 31; Dec., Edit. 27, 28, 29, 30
Driving Loaded Drums, Dec., Edit. 43, 44
Eliminating Vibration, Sept., Edit. 36 L
Employing Differential Principle, Aug., Edit. 20 L
Employment of Forgings, Oct., Edit. 27, 28, 29, 30, 31; Nov., Edit, 38, 39, 40, 47R
Feeding Materials, Oct., Edit. 20
Finishing Machines Economically, Nov., Edit. 41, 42, 43
High Pressure Bearings, Sept., Edit. 46, 47, 48
Increasing Wear Resistance, Aug., Edit. 31
Lubricating Bearings, Sept., Edit. 35, 36, 37; Oct., Edit 39, 40, 47 R, 49 R; Nov., Edit. 21.
Meeting Expansion due to Heat, Nov., Edit. 21 R
Mounting Antifriction Bearings, Dec., Edit. 34, 35, 36, 37, 38, 70 R
Mounting High-Speed Spindles, Nov., Edit. 20, 21, 22
Mounting Motors, Oct., Edit. 44
Providing Accessibility, Oct., Edit. 19, 20, 21, 22
Reducing Design Calculations, Dec., Edit. 31, 32, 33
Sales of Product, Sept., Edit. 45
Sealing Against Oil Leakage, etc., Aug., Edit. 20
Selecting Materials, Sept., Edit. 23, 24, 25, 26, 27, Loose Insert
Solving Weight-Strength Problems, Dec., Edit 19, 20, 21, 22, 23
Sorting and Indexing, Aug., Edit. 43

Finishes:
Crystal and Crinkle Japans, Nov., Edit. 41, 42, 43
Paint, Oct., Edit. 64 R
Quick Drying, Nov., Edit. 62 L

Materials:
Alloys (Copper), Dec., Edit. 44 R
Alloys (Iron), Aug., Adv., 6; Sept., Adv. 6; Oct., Adv. 11; Nov., Adv. 11; Dec., Edit. 53 R; Adv. 15
Alloys (Nickel), Oct., Edit. 36, 37, 38

Alloys (Steel), Nov., Edit. 40
Aluminum, Sept., Edit. 24 L, 26 L, 27; Oct., Edit. 23; Dec., Edit. 68 R
Babbitt, Sept., Edit. 27 R; Dec., Edit. 37 R
Composition, Sept., Edit. 37
Cork, Aug., Adv. 84; Sept., Adv. 19; Oct., Adv. 81; Nov., Adv. 4; Dec., Adv. 77
Duralumin, Dec., Edit. 22 L
Lubricant, Dec., Edit. 63 R
Nitralloy, Oct., Edit. 25
Nitralloy—and Nitriding Process, Aug., Edit. 31, 32, 33, 34
Rare Metals and Alloys, Aug., Adv. 78 L; Sept., Adv. 74 L; Oct., Adv. 76 L; Nov., Adv. 72 L; Dec., Edit. 39, 40, 41, 42, 44 R; Adv. 67 R
Steel (Carbon Chromium), Sept., Edit. 25 R, 26 L, 27 L
Steel (Chrome Nickel), Sept., Edit. 24 L, 26 L
Steel (Cold Finished), Aug., Adv. 10, 11, 61; Sept., Adv. 59; Oct., Adv. 61; Nov., Adv. 55; Dec., Edit. 25 R; Adv. 65
Zinc, Aug., Adv. 85; Sept., Adv. 85; Oct., Adv. 85; Nov., Adv. 85; Dec., Adv. 83

Mechanisms:

Adjusting, Oct., Edit. 21; Nov., Edit. 22; Dec., Edit. 52 R
Clamping, Nov., Edit. 23; Dec., Edit. 46
Clutch, Aug., Edit. 19, 22; Oct., Edit. 20, 22, 25
Conveying, Nov., Edit. 23 R; Dec. Edit. 26
Drop Lock, Aug., Edit. 24
Feeding, Oct., Edit. 20, 53; Dec., Edit. 45, 46, 47
Free Wheel, Sept., Edit. 28, 29
Indexing, Dec., Edit. 45, 46, 47
Indicator, Nov., Edit. 27 R; Dec., Edit. 64
Safety, Aug., Edit. 40 R
Suction, Oct., Edit. 21 R, 22
Tracer, Dec., Edit 24

Organization and Equipment:

Of Engineering Department, Aug., Adv. 73; Sept., Edit. 49, 50; Adv. 18; Oct., Edit. 32, 33, 34, 48; Adv. 77; Nov., Adv. 15; Dec., Edit. 48, 49 L; Adv. 79

Parts:

Bearings, Aug., Edit. 35, 36, 37, 38, 39, 55 R, 56 L, 70 L; Adv. 2, 14, 18, 75, 76; Sept., Edit. 34 R, 46, 47, 48; Adv. 2, 11, 22, 63, 75, 76, 78 L, 82 L, 84; Oct., Edit. 42 R, 44 L, 46, 47, 52; Adv. 2, 8, 18, 67, 80 L; Nov., Edit. 20, 21, 22, 23; Adv. 2, 12, 18, 63, 67, 68, 78 (lower half), 82 L, 83; Dec., Edit. 34, 35, 36, 37, 38, 70 R; Adv. 2, 12, 18, 80 L, 82
Cast Parts, Aug., Adv. 9; Sept., Edit. 24 R; Adv. 9, 17; Oct., Adv. 9; Nov., Adv. 9; Dec., Adv. 9
Clutches, Aug., Edit. 22, 23 L, 26 R; Adv. 65; Sept., Adv. 61; Oct., Edit. 25; Adv. 14; Nov., Edit. 51, 66; Adv., 73; Dec., Edit. 46; Adv. 75
Contact Points, Nov., Adv. 72 L; Dec., Edit. 66 L; Adv. 67 R
Controls (Electrical), Aug., Edit. 27 L, 70 R, 72 R, 74 L; Adv. 67, 79; Sept., Edit. 64, 66 L; Adv. 71, 73; Oct., Edit. 64 R, 66 L, 68 R; Adv. 73, Nov., Edit. 64 R, 66 R, 69, 70 R; Adv. 61, 65, Dec., Edit. 24, 26, 63 L, 64 L, 64 R, 66; Adv. 81
Couplings, Aug., Edit. 20 L; Adv. 8; Sept., Edit 36 R; Oct., Edit. 54; Adv. 4; Nov., Edit. 50; Dec., Edit. 52 R, 53, 63 R; Adv. 11
Drives, Aug., Edit. 25 R, 55 L, 70 R, 72 L; Adv. 3, 17, 82 L; Sept., Edit. 31, 54, 68 R, 72 R, 74 R; Adv. 3, 15, 65, 72 L, 83; Oct., Edit. 22, 68 L, 70 L; Adv. 3, 13, 71; Nov., Edit. 32, 33, 34, 62 L; Adv. 3, 59, 79; Dec., Edit. 24 R, 25 L, 26 L, 43, 44, 52, 62 L, 67 L; Adv. 3, 6, 69
Fastenings, Aug., Adv. 83; Sept., Adv. 14, 86; Oct., Adv. 63; Nov., Adv. 14, 57, Dec., Edit. 28; Adv. 8, 84
Flexible Shafts, Sept., Adv. 13; Nov., Adv. 75
Forgings, Sept., Edit. 25 L, 38, 39, 40, 41; Oct., Edit. 27, 28, 29, 30, 31; Nov., Edit. 38, 39, 40, 47 R; Dec., Edit. 45, 46, 47
Gears, Aug., Edit. 20 L, 33, 50 R, 74 L; Adv. 17; Oct., Adv. 13; Dec., Edit. 26 L, 27, 28 L, 46
Heating Units, Sept., Adv. 16; Oct., Edit. 21 R; Nov., Adv. 10
Lubricating Equipment, Aug., Edit. 20 R, 37 R, 39 R, 55 R, 56, 68 R; Adv. 13, Sept., Edit. 68 R; Adv. 8, Oct., Edit. 39, 40; Adv. 15; Nov., Edit. 27 R; Adv. 77; Dec., Edit. 35 R, 36, 37; Adv. 13, 71
Motors, Aug., Edit. 27 R, 54, 68 L; Adv. 63, 71; Sept., Edit. 31, 66 R, 68 L; Adv. 67, 79, 81; Oct., Edit. 41, 42, 43, 44, 70; Adv. 69, 79; Nov., Edit. 20, 21, 22, 32 R, 33, 36, 37, 64 R, 66 L, 70; Adv. 81; Dec., Edit. 26, 62 R, 66 L, 67 L; Adv. 73
Packing Glands and Packing, Aug., Edit. 20 R, 38 L; Adv. 4, 15; Sept., Edit. 37; Adv. 4, 10, 21; Oct., Adv. 10, 17, 86; Nov., Adv. 13, 17, 86; Dec., Edit. 35 R, 38 R, 66 R; Adv., 4, 14, 17
Photoelectric Equipment, Nov., Edit. 24, 62 R
Pulleys, Aug., Adv. 86; Oct., Edit. 66 R; Adv. 6; Nov., Edit. 20 R
Pumps, Sept., Edit. 66 L; Nov., Edit. 64 L; Dec., Edit. 48 R
Recording Unit, Dec., Edit. 64
Springs, Aug., Edit. 44, 45, 46, 47 R; Dec., Edit. 47
Stampings, Aug., Adv. 69; Sept., Adv. 69; Oct., Adv. 65; Nov., Adv. 71; Dec., Edit. 63 R
Steel Balls, Aug., Edit. 22 L, 54 L; Adv. 75, 76; Dec., Edit. 22 R, 62 R, 63 L, 67 L
Welded Parts, Aug., Adv. 12, 81; Sept., Adv. 12; Oct., Edit. 25, 35, 66 R; Adv. 82; Nov., Edit. 44; Adv. 84; Dec., Edit. 25 R, 49 R, 62 R; Adv. 10

Principles:

Differential, Aug., Edit. 20 L
Fundamentals of Mechanics, Dec., Edit. 55
Hydraulic, Aug., Edit. 19, 20, 21, 22, 23; Sept., Edit. 30; Nov., Edit. 23 R, 26 R

Standardization:

Abbreviations for Scientific and Engineering Terms, Dec., Edit. 60 R
Discussing Advantages of, Aug., Edit. 49 R, 50 L
Discussion of Specifications for Nonferrous Ingot Metals, Dec., Edit. 44 R
Machine Pins, Nov., Edit. 35, 72 R
Motors, Oct., Edit. 41, 42, 43, 44
Organization of Light Metals Group, Dec., Edit. 42 R
Promulgation of Standards, Oct., Edit. 60